

Melick, et al.

Attorney Docket No. P04409US01

**Amendments to the Claims**

Claim 1 (Currently amended): A method of transmitting data, the method comprising:  
receiving a digital bit of data from a memory unit;  
transforming the bit of data into a transmission pulse, the transmission pulse having a pulse  
characteristic selected from a set of three or more predetermined pulse characteristics, one  
of which is corresponding to the bit of data; and  
transmitting the transmission pulse over a guided medium without using a carrier signal to  
transmit the transmission pulse.

Claim 2 (Previously presented): The method of claim 1 wherein the pulse characteristics  
correspond to numbers 0 through 9.

Claim 3 (Original): The method of claim 1 wherein the data is in the form of universal  
character encoding.

Claim 4 (Previously presented): The method of claim 1 further comprising:  
receiving the transmission pulse from the guided medium; and  
transforming the transmission pulse into a digital bit of data corresponding to the characteristics  
of the transmission pulse.

Claims 5-18 (Cancelled)

Claim 19 (Original): A method of storing data on a fiber optic cable, the method comprising:  
receiving data in a receiver, the data being in the form of a series of variable duration pulses of  
light;  
transmitting the variable duration pulses from a transmitter over a fiber optic cable;  
receiving the variable duration pulses in the receiver; and  
repeating the transmission of the variable duration pulses over the fiber optic cable in the  
direction of the receiver.

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Claim 20 (Cancelled)

Claim 21 (Currently amended): A method of transmitting data, comprising:  
receiving at least one digital bit of data from a memory unit;  
transforming the at least one digital bit of data into a transmission pulse, the transmission pulse  
having a pulse characteristic selected from a set of at least three predetermined pulse  
characteristics, one of which is corresponding to the bits of data;  
transmitting the transmission pulse without using a carrier signal to transmit the transmission  
pulse.

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a  
pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claim 23 (Previously presented): The method of claim 21 wherein the transmission pulse is  
an electronic pulse and wherein the step of transmitting is transmitting over a guided media.

Claim 24 (Previously presented): The method of claim 21 wherein the pulse characteristics  
are pulse durations.

Claim 25 (Previously presented): The method of claim 21 wherein the pulse characteristics  
are pulse durations, the transmission pulse is a pulse of light and wherein the step of transmitting  
is transmitting over fiber optic cable.

Claim 26 (Previously presented): The method of claim 21 wherein the pulse characteristic is  
a pulse position and wherein the transmission pulse is a pulse of light.

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Claim 27 (Previously presented): The method of claim 21 wherein the pulse characteristic is a pulse position and wherein the transmission pulse is an electronic pulse and wherein the step of transmitting is transmitting over guided media.

Claim 28 (Currently amended): A method of transmitting data with photonic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of light, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over fiber optic cable without using a carrier signal to transmit the transmission pulse.

Claim 29 (Cancelled).

Claim 30 (Previously presented): The method of claim 28 wherein the data is in the form of universal character encoding.

Claim 31 (Previously presented): The method of claim 28 further comprising:  
receiving the transmission pulse from the fiber optic cable; and  
transforming the transmission pulse into digital bits of data corresponding to the position of the transmission pulse.

Claims 32-37 (Cancelled)

Claim 38 (Currently amended): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;

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transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse characteristic selected from a set of three or more predetermined pulse characteristics, one of which is corresponding to the bits of data; and transmitting the transmission pulse over a transmission medium without using a carrier signal to transmit the transmission pulse.

Claim 39 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the transmission pulses position in time.

Claim 40 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration between transmission pulses.

Claim 41 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the amplitude of the transmission pulse.

Claim 42 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration of the transmission pulse.

Claim 43 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the phase of the transmission pulse.

Claim 44 (Cancelled).

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

Claim 46 (Previously presented): The method of claim 38 further comprising: receiving the transmission pulse from the transmission medium; and transforming the transmission pulse into a digital bits of data corresponding to the specific characteristics of the transmission pulse.

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Claim 47 (Currently amended): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over a transmission medium without using a carrier signal to transmit the transmission pulse.

Claim 48 (Cancelled).

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of universal character encoding.

Claim 50 (Previously presented): The method of claim 47 further comprising:  
receiving the transmission pulse from the transmission medium; and  
transforming the transmission pulse into a digital bits of data corresponding to the position of the transmission pulse.

Claims 51-56 (Cancelled)

Claim 57 (Previously presented): A method of storing data on a transmission medium, the method comprising:  
receiving data in a receiver, the data being in the form of a series of variable characteristic transmission pulses;  
transmitting the variable characteristic transmission pulses from a transmitter over a transmission medium;  
receiving the variable characteristic transmission pulses in the receiver; and

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repeating the transmission of the variable characteristic pulses over the transmission medium in the direction of the receiver.

Claim 58 (Currently amended): A method of transmitting data, the method comprising: representing at least one bit of data by varying a pulse characteristic of a time modulated ultrawideband pulse wherein the pulse characteristic is selected to be of one of a set of at least three pulse characteristics based on the value of the at least one bit of data; and transmitting the time modulated ultrawideband pulse over a guided medium to a receiver.

Claim 59 (Previously presented): The method of claim 58 wherein each of the pulse characteristics within the set is a pulse duration.

Claim 60 (Previously presented): The method of claim 58 wherein each of the plurality of pulse characteristics within the set is a pulse position.

Claim 61 (Previously presented): The method of claim 58 wherein each of the plurality of pulse characteristics within the set is a pulse spacing.